DISTRIBUTED DYNAMIC CHANNEL SELECTION IN A COMMUNICATION NETWORK

ABSTRACT

In one embodiment, a first node among a number of distributed nodes capable of forming or reforming a communication network between the nodes, each of the nodes including functionally similar components for forming or reforming such a network, includes a memory for storing values for variables for the node. The first node also includes one or more components collectively operable to: (1) spontaneously and independent of a centralized controller associated with the network, transmit a probe message to one or more of the other nodes for purposes of forming or reforming a network; (2) receive a probe message from a second node, the probe message including values for the variables for the second node; (3) compare the values for the variables for the first node to the values for the variables for the second node within the probe message to determine, independent of a centralized controller associated with the network, whether the first node should set itself to a new channel; and (4) if so, set the first node to the new channel.